

In the Matter of )  
 )  
Expanding Flexible Use of the 3.7 to 4.2 ) GN Docket No. 18-122  
GHz Band )

To: The Commission

## OPPOSITION OF THE BOEING COMPANY

The Boeing Company (“Boeing”) hereby opposes the Petition for Expedited Reconsideration or Clarification (“*Petition*”) of Eutelsat S.A. Most, if not all, of the issues raised in the *Petition* are now moot. Eutelsat sought clarification regarding the compensable costs for new satellites “to enable Eutelsat to prepare its transition plan.”<sup>1</sup> Eutelsat has since filed its transition plan, which indicates an apparent plan to launch one new C-band satellite.<sup>2</sup> Therefore, Eutelsat appears no longer to need clarification regarding this aspect of the transition process.

Eutelsat also briefly suggested that clarity is needed to ensure that the cost of new C-band satellites does not result in “impairment of the proceeds from the auction of 3.7-4.2 GHz flexible use licenses.”<sup>3</sup> The Commission has already published estimated ranges for satellite costs in both the *C-Band Order*<sup>4</sup> and in the *Preliminary Cost Category Schedule*<sup>5</sup> and the likely auction

<sup>1</sup> Petition for Expedited Reconsideration or Clarification of Eutelsat S.A., GN Docket No 18-122, at 2 (undated, but filed on May 26 2020) (“*Petition*”).

<sup>2</sup> See Transition Plan of Eutelsat S.A., GN Docket Nos. 20-173 and 18-122, at 3 (June 19, 2020).

<sup>3</sup> *Petition* at 2.

<sup>4</sup> Expanding Flexible Use of the 3.7 to 4.2 GHz Band, GN Docket No. 18-122, *Report and Order and Order of Proposed Modification*, FCC 20-22, ¶ 210 (March 3, 2020) (“C-Band Order”).

<sup>5</sup> See 3.7 GHz Transition Preliminary Cost Category Schedule Of Potential Expenses And Estimated Costs, § II (April 27, 2020) (“*Preliminary Cost Category Schedule*”), included as an

participants have not expressed any concern about these estimates. Instead, carriers such as Verizon have volunteered that the auction will “no doubt be competitive.”<sup>6</sup> Therefore, no clarity is needed regarding the cost compensation process for satellites. Moreover, the Commission’s *C-Band Order* and abundant precedent on spectrum clearing reimbursement already provide ample guidance that satellite operators can use to identify and appropriately minimize their compensable expenses for new C-band satellites.

# **I. THE COMMISSION HAS PROVIDED SUBSTANTIAL GUIDANCE ON THE APPROPRIATE CALCULATION OF REIMBURSABLE COSTS FOR NEW C-BAND SATELLITES**

Eutelsat urges the Commission to “define, in greater detail” such relevant terms in the cost compensation process as “comparable facilities,” “reasonable,” and “necessary.”<sup>7</sup> Each of these terms, however, has been explained thoroughly by the Commission in its *Emerging Technologies* proceeding<sup>8</sup> and during subsequent spectrum clearing efforts. Even Eutelsat has acknowledged that the Commission’s *Emerging Technologies* “precedent provides clear policies and principles governing incumbent relocation.”<sup>9</sup>

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*attachment to Public Notice, Wireless Telecommunications Bureau Seeks Comment On Preliminary Cost Category Schedule For 3.7-4.2 GHz Band, DA 20-457 (April 27, 2020).*

<sup>6</sup> Comments of Verizon, AU Docket No. 20-25, at 12 (May 1, 2020).

<sup>7</sup> *Petition* at 4.

<sup>8</sup> *See, e.g.,* Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies, *First Report and Order and Third Notice of Proposed Rule Making*, ET Docket No. 92-9, 7 FCC Rcd 6886 (1992); *Second Report and Order*, 8 FCC Rcd 6495 (1993); *Third Report and Order and Memorandum Opinion and Order*, 8 FCC Rcd 6589 (1993); and *Memorandum Opinion and Order*, 9 FCC Rcd 1943 (1994).

<sup>9</sup> White Paper, *Legal Basis of Eutelsat’s C-band Transition Proposal*, Eutelsat S.A., at 6 (Jan. 27, 2020), *included as an attachment to* Letter from Carlos M. Nalda, LMI Advisors, to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket 18-122 (Jan. 23, 2020).

The courts have also affirmed the Commission’s *Emerging Technologies* framework. The United States Court of Appeals for the D.C. Circuit concurred with the Commission’s view that “comparable facilities” are those that are “equivalent to the existing [] facilities with respect to throughput, reliability, and operating costs.”<sup>10</sup> Based on this precedent, Eutelsat has previously argued that, with respect to C-band satellites, “the concept of a comparable facility may be considered as a means to provide transmission services comparable to those currently provided, at comparable cost, therefore producing the same revenue.”<sup>11</sup>

With respect to “reasonable” and “necessary,” both of these terms have also been subject to decades of analysis and explanation by the Commission. The Commission directly addressed this issue in the *C-Band Order*, explaining that “[r]easonable’ relocation costs are those necessitated by the relocation in order to ensure that incumbent space station operators continue to be able to provide substantially the same or better service to incumbent earth station operators.”<sup>12</sup>

With respect to “necessary,” the Commission already concluded in the *C-Band Order* that “procuring and launching new satellites may be reasonably necessary to complete the transition.”<sup>13</sup> The Commission explained that these new satellites will be necessary to “support more intensive use of the 4.0-4.2 GHz band after the transition.”<sup>14</sup> The Commission also acknowledged — as it

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<sup>10</sup> *Teledesic, LLC v. FCC*, 275 F.3d 75, 85 (D.C. Cir. 2001).

<sup>11</sup> Letter from Carlos M. Nalda, LMI Advisors, to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket 18-122 at 3 (Jan. 27, 2020).

<sup>12</sup> *C-Band Order*, ¶ 194.

<sup>13</sup> *Id.*, ¶ 199.

<sup>14</sup> *Id.*

has done in previous band clearing proceedings — that the new C-band satellites “may include improved functionality beyond what is necessary to clear the band.”<sup>15</sup>

The *C-Band Order*’s treatment of satellites with improved functionality is identical to the manner in which the Commission addressed this same issue in prior band clearing proceedings. It is evident, however, that Eutelsat wants the Commission to reject this precedent and adopt a different approach by prohibiting compensation for satellites with multiple capabilities. As discussed below, however, no justification exists to abandon the Commission’s longstanding and clearly defined policy on this issue.

## **II. THE COMMISSION SHOULD ADHERE TO ITS LONGSTANDING POLICIES ON COMPENSATION FOR EQUIPMENT WITH ADDITIONAL CAPABILITIES**

The *C-Band Order* recognizes that some of the equipment that will be needed for the spectrum clearing process — including new satellites — may include additional capabilities that are unrelated to the C-band. As the Commission has done in prior spectrum clearing proceedings, the *C-Band Order* instructed that “if an incumbent builds additional functionalities into replacement equipment that are not needed to facilitate the swift transition of the band, it must reasonably allocate the incremental costs of such additional functionalities to itself and only seek reimbursement for the costs reasonably allocated to the needed relocation.”<sup>16</sup>

The Commission took this identical position in prior spectrum clearing proceedings. For example, in the *Broadcast Incentive Auction* proceeding, the Commission instructed that broadcasters “may elect to purchase optional equipment capability or make other upgrades at their

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<sup>15</sup> *Id.*

<sup>16</sup> *Id.*, ¶ 194.

own cost, but only the cost of the equipment without optional upgrades is a reimbursable expense.”<sup>17</sup> This same policy was used in the *800 MHz Reconfiguration* proceeding, in which the reconfiguration guidelines explained that, if a licensee seeks to upgrade its 800 MHz network, the licensee “will be responsible for any costs that exceed the costs of reconfiguring the existing system.”<sup>18</sup>

Despite this wealth of precedent, Eutelsat has urged the Commission to declare new satellites ineligible for compensation unless they only operate “in the 4.0-4.2 GHz band providing coverage solely to the [continental United States (“CONUS”)] for the entire duration of its useful life.”<sup>19</sup> Thus, Eutelsat asserts that “[a] hybrid satellite is not a ‘comparable’ facility in the context of the C-band relocation.”<sup>20</sup>

In making this argument, Eutelsat acknowledges that the Commission took a different position in its *C-Band Order*.<sup>21</sup> Eutelsat, however, argues that the use of hybrid satellites should be prohibited in the C-band proceeding because “it will be a difficult and imprecise process to

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<sup>17</sup> Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions, GN Docket No. 12-268, *Report and Order*, FCC 14-50, ¶ 624 (June 2, 2014) (“*Broadcast Incentive Auction Order*”).

<sup>18</sup> *800 MHz Band Reconfiguration Handbook*, 800 MHz Transition Administrator, at 85 (Sept. 6, 2013) (“*800 MHz Reconfiguration Handbook*”), available at [http://www.800ta.org/content/resources/Reconfiguration\\_Handbook.pdf](http://www.800ta.org/content/resources/Reconfiguration_Handbook.pdf). The 800 MHz Band Reconfiguration Handbook was not an official publication of the FCC, but the Handbook — and particularly that section of the Handbook addressing network upgrades — was frequently referenced by the Commission in official orders as authoritative guidance regarding the Commission’s policies. See, e.g., Improving Public Safety Communications in the 800 MHz Band, *Fifth Report and Order*, 28 FCC Rcd 4085, ¶ 63 (2013) (directing licensees interested in upgrading their 800 MHz networks to the upgrade section of the *800 MHz Reconfiguration Handbook*).

<sup>19</sup> *Petition* at 4.

<sup>20</sup> *Id.* at 5.

<sup>21</sup> See *id.* (quoting *C-Band Order*, ¶ 194).

allocate the design, construction, launch, and other costs of a hybrid satellite in a way the [sic] meaningfully reflects the costs of the C-band portion.”<sup>22</sup> As an example, Eutelsat expresses concern about “allocation of costs for launch services caused by increases in bus size where the satellite is equipped to provide services in more than just C-band over CONUS (*i.e.*, what part of the cost increases would be considered reimbursable as ‘incremental’?).”<sup>23</sup>

Fortunately, the Commission has confronted these same questions previously in the context of other spectrum clearing proceedings and has devised an extremely simple solution to this seemingly complex problem. In apportioning the costs of additional capabilities for purposes of compensation, the Commission has explained that it is appropriate to consider the cost of replacement equipment that lacks additional capabilities (*i.e.*, the cost of a C-band-only satellite) and subtract that amount from the cost of a hybrid satellite, with the remainder identified as ineligible for reimbursement. In this way, only the costs that are attributable to the C-band capabilities are eligible from compensation.

The Commission employed this approach in the *Broadcast Incentive Auction* proceeding, explaining that, if a licensee elects to purchase equipment with additional capabilities, “only the cost of the equipment without optional upgrades is a reimbursable expense.”<sup>24</sup> This approach was also used in the *800 MHz Reconfiguration* proceeding, in which the Commission’s Transition Administrator directed that, “[f]or comparison purposes” licensees that seek to upgrade their networks should “[s]ubmit a Cost Estimate for the full reconfiguration of the existing system, absent of any upgrades or replacements not required for reconfiguration” in order to document the

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<sup>22</sup> *Id.* at 11.

<sup>23</sup> *Id.* at 12.

<sup>24</sup> *Broadcast Incentive Auction Order*, ¶ 624.

portion that will be compensated.<sup>25</sup> This is consistent with the Commission’s explanation in the *C-Band Order* that “the incremental costs of such additional functionalities” are ineligible for compensation.<sup>26</sup>

Facilitating this cost comparison approach is the fact that multiple new satellites will be needed to complete the clearing of the 3.7-4.0 GHz band and a significant number of these satellites have already been identified as C-band-only satellites. In fact, Boeing is currently under contract to manufacture C-band-only satellites to support the band clearing. The costs of these C-band-only satellites, including their design, manufacture and launch, must be documented and presented to the Commission’s Relocation Payment Clearinghouse for reimbursement. Therefore, the compensable portion of the cost of a hybrid satellite will be easy to determine and a prohibition on such satellites is unnecessary.

Prohibiting hybrid satellites is not only unnecessary, but would also be highly inefficient. Satellite manufacturing, launch and operating costs include certain fixed expenses that must be incurred regardless of whether a satellite hosts a single payload or multiple payloads. Although certain of these costs increase marginally for multi-payload satellites, such as the launch costs, other costs are fixed regardless of the hybrid capabilities of the spacecraft, such as managing it in-orbit throughout its operational life. Each new geostationary satellite also consumes scarce orbital resources along the geostationary arc and is a potential source of future orbital debris regardless of its functional capabilities. Therefore, it is far more efficient and cost effective to launch and operate multi-payload rather than single payload satellites. Fortunately, no reason exists for the

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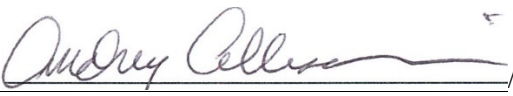
<sup>25</sup> *800 MHz Reconfiguration Handbook* at 85.

<sup>26</sup> *C-Band Order*, ¶ 194.

Commission to prohibit the use of hybrid satellites. Therefore, the Commission should dismiss Eutelsat's petition as both moot and unnecessary to achieve the stated goals of the C-band proceeding.

Respectfully submitted,

**THE BOEING COMPANY**

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